

In the claims:

All of the claims standing for examination are reproduced below. Claims 31 and 34 are amended and claims 32, 35 and 36 are canceled in this response.

1-30 (Canceled)

31. (Currently amended) In a data-packet network, a method for routing packets through while ensuring load balancing and in-order delivery for unique packet flow defined by unique source/destination pairs, comprising the steps of:

- (a) providing a label-switching sub-network having one ingress node and one egress node and at least two nodes internal to the sub-network for routing packets;
- (b) creating a sufficient number of label-switched paths (LSPs) from the ingress node to the egress node such that each packet flow has a unique LSP; and
- (c) associating each packet flow with one of the created LSPs;

wherein each sub-network node is connected by one or more physical parallel links and the number of LSPs created is equal to the least-common multiple of the number of links between each individual internal sub-network node in the node path, wherein the number of links between the sub-network nodes may differentiate and the sufficient number of LSPs are created based on a requirement to balance the distribution of LSPs over the physical links and each LSP created is utilized by the sub-network to balance the load of packet flow through the network.

32. (Canceled).

33. (Currently amended) The method of claim 31 wherein, in step [(a)] (b) a mask value is added to a label value in the process of setting up the LSPs, and the LSPs are all created in response to a single signal sent from the ingress node.

34. (Currently amended) A routing system in a data-packet network comprising:

a label-switching sub-network with one ingress node and one egress node, with at least two nodes internal to the sub-network, each node connected by one or more physical parallel links;

a mechanism for creating a sufficient number of label-switched paths (LSPs) from the ingress node to the egress node such that each packet flow has a unique LSP; and

a mechanism for associating each packet flow with one of the created LSPs; characterized in that the number of LSPs created is equal to the least-common multiple of the number of links between each individual internal sub-network node in the node path, wherein the number of physical links between the sub-network nodes may differentiate and the sufficient number of LSPs are created based on a requirement to balance the distribution of LSPs over the physical links and each LSP created is utilized by the sub-network to balance the load of packet flow through the network.

35. (Canceled)

36. (Canceled)